PARKING AND TRANSPORTATION DEMAND MANAGEMENT ASSESSMENT

BEACON STREET HOTEL SOMERVILLE, MA

SEPTEMBER, 2009



Submitted to:

City of Somerville Traffic and Parking

Prepared by

Design Consultants, Inc.

265 Medford Street Somerville, MA 02143 Tel. # (617) 776-3350

Design Consultants, Inc.

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MEMORANDUM

DCI JOB NO. 2009-009.00

TO:

Terry Smith, Traffic Engineer

Somerville Traffic and Parking Department

FROM:

David R. Ivany, PE, PTOE

Senior Transportation

Engineer

SUBJECT:

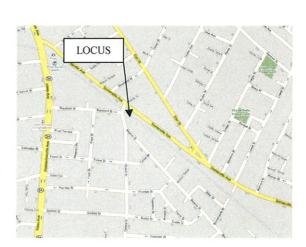
Parking and Transportation

Demand Management Assessment – Beacon Street

Hotel

DATE:

September 10, 2009



This memorandum report has been prepared to assess Parking and Transportation Demand Management (PTDM) for the proposed Beacon Street Hotel development at 369-371 Beacon Street in Somerville. The report has been organized as follows:

- A. Proposed Development
- B. Parking Demand Considerations
- C. Existing On-Street Parking Supply
- D. TDM Considerations
- E. Conclusions

The results have confirmed that the multi-modal transportation system that serves the area will encourage a high number of patrons to utilize travel modes other than private automobile to access the site and thereby minimize parking demand. Field survey has documented that available on-street parking in the vicinity of the site is more than adequate to accommodate the additional parking for the proposed restaurant use. This condition is expected to be maintained with the recently implemented city-wide Permit

Parking policy that will limit public parking to 2-hours along Somerville Avenue and Beacon Street. The restriction will cover the time period from 8:00 AM to 2:30 AM daily except by permit.

A. Proposed Development

The proposed Beacon Street Hotel will replace the former gas station use (no longer in use) and construct a new hotel building with 35 guestrooms and a 60-seat restaurant. The new building will include an underground parking structure that will provide for 28 parking spaces. Access to the underground parking would be via a curb cut onto Beacon Street at the southern end of the site, providing the greatest distance between the driveway and the nearby major traffic intersection of Beacon Street and Somerville Avenue.

A copy of the proposed site plan submittal to the City of Somerville dated 10-30-08 is provided in the attached Appendix A.

B. Parking Demand Considerations

The current proposed site plan provides 28 underground parking spaces on site as well as a drop off area adjacent to the site driveway off of Beacon Street that would be sized to handle two parked vehicles. This amount of parking is sufficient to meet the City of Somerville Ordinance requirements for the proposed site development. A computation of the minimum spaces required is included in the attached Appendix B.

It is anticipated that the on-site underground parking will be primarily used to accommodate guests at the hotel. Since a large percentage of patrons will arrive by taxi or by public transit, (refer to Section D. TDM Considerations that follows) the available spaces should be more than adequate. In the event that additional parking is needed for hotel guests, the project proponent has indicated that valet service will be provided.

A large percentage of restaurant patrons will similarly arrive by modes other than private automobile. However, it is expected that patrons arriving by car will affect on-street parking in the vicinity. The following section identifies the available on-street parking condition.

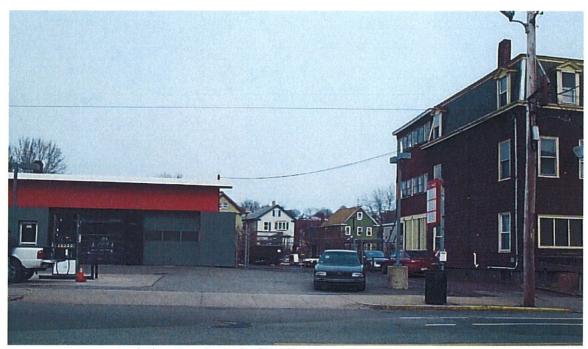
C. Existing On-Street Parking Supply

Surrounding Roadway Network

<u>Beacon Street</u> is a two-lane undivided arterial roadway with on-street parking that provides a north-south connection between Somerville Avenue and the Cambridge City Line, where it becomes Hampshire Street. Land use in the adjacent area is a mix of residential and retail uses.

<u>Somerville Avenue</u> also is a two-lane undivided arterial roadway with on-street parking. It provides an east-west connection between Union Square in Somerville to Porter Square in Cambridge. Sommerville Avenue has been undergoing a major reconstruction that is scheduled to be completed in 2010.

Both of the above-noted streets are under the jurisdiction of the City of Somerville.



Existing South End of Project Site along Beacon Street



Existing 2-hour Parking along Beacon Street

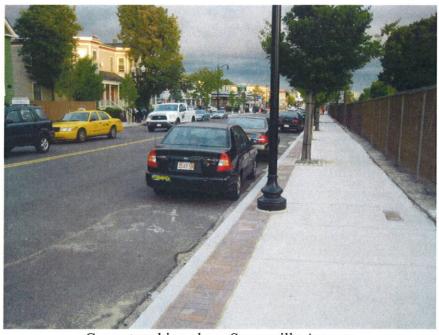
Parking Survey

A survey of on-street parking use was undertaken for the available spaces along Beacon Street and Somerville Avenue in the vicinity. Currently, on-street parking is restricted to two hours duration without parking meters along Beacon Street (posted as 8:00 AM to 6:00 PM, except Sundays and Holidays, except by permit). The section of Somerville Avenue is currently not signed but will be posted (consistent with the new City policy) as construction nears completion. The current on-street parking is shown on Figure 1.

The survey covered the current midday and evening conditions on Tuesday, September 1, 2009 to coincide with peak restaurant demand. Weather conditions were appropriately sunny and pleasant with moderate temperatures. As shown on Figure 1, all of the onstreet spaces surveyed were within walking distance (about 3 blocks) of the site. The chart on Figure 1 illustrates the available 2-hour spaces (including handicap) for the following sections:

Beacon Street - south side: 50 spaces
Beacon Street - north side: 35 spaces
Somerville Avenue - south side: 27 spaces
Somerville Avenue - north side: 14 spaces

Total: 126 spaces



Current parking along Somerville Avenue

The results of the survey show that total street occupancy ranged between 50 to 60% of the 126 spaces during both the midday and evening peak hours as shown on Figure 2. This means that approximately 50 to 60 spaces were available on the street. Detailed field survey results are provided in Appendix C.

Occupancy by location showed distinct differences. Somerville Avenue showed lower rates of use (about 40%) while Beacon Street varied between 60 and 70 percent. (refer to Figure 2). This would be expected with higher commercial activity along Beacon Street, combined with the lack of land use frontage (adjacent MBTA/rail corridor) along the south side of Somerville Avenue.

Based on the survey information, duration of parking was also calculated for each street during the lunch and dinner periods. Average parking duration along Beacon Street was less than 2 hours, while parking on Somerville Avenue was longer as shown on Figure 3. The longer durations on Somerville Avenue are understandable due to the lack of posted 2-hour restrictions. It is anticipated that durations will shorten with implementation of the new city-wide parking restrictions. This in turn will allow for better turnover and availability of on-street parking for general commercial use.

Completion of the Somerville Avenue project will result in the elimination of some parking spaces (total of 6 spaces on the north side at the Beacon Street signal) that were noted as being available during the field survey. As documented in the survey, only one of these spaces was utilized. Taking this into account, along with consideration of the city-wide parking policy; an estimated 45 to 55 spaces will be available on the street.

In summary, the available on-street parking would appear to be more than adequate to accommodate the additional traffic demands of the proposed restaurant use and will be improved with the recent implementation of the City's Permit Parking policy and associated 2-hour limits for Somerville Avenue and Beacon Street.

D. TDM Considerations

Transit

Nearby Porter Square is served by a major multi-modal transportation center with the MBTA subway (Red Line) and commuter rail station (Fitchburg-North Station). Convenient pedestrian access to the MBTA is located within 1000 feet of the proposed project site as shown on Figure 1.

The Porter Square area is also served by multiple MBTA bus routes that feed into the MBTA station; including Routes 77, 83, 87, 88, 90 and 96.

The close proximity of these transit services encourages the use of these services by a significant number of hotel and restaurant patrons.

Pedestrian Access

It is anticipated that pedestrians (non-hotel guests) will visit the proposed restaurant from the surrounding residential neighborhoods, and similarly, for hotel guests to walk to and from the nearby urban center and services offered at Porter Square, as well as Davis Square and Harvard Square (within walking distance).

Bicycle Accommodation

Bicycle travel will be well accommodated in the vicinity of the site. Existing bike facilities in the area will be enhanced with the proposed Somerville Avenue improvements. New bicycle lanes and bike racks are a key component of the streetscape improvements that extend from Union Square in Somerville to Porter Square in Cambridge. Future planned improvements for Beacon Street will also provide for expanded bike lane facilities connecting to Somerville Avenue. (refer to previously submitted improvement plan in site vicinity – see Appendix D)

Modal Split

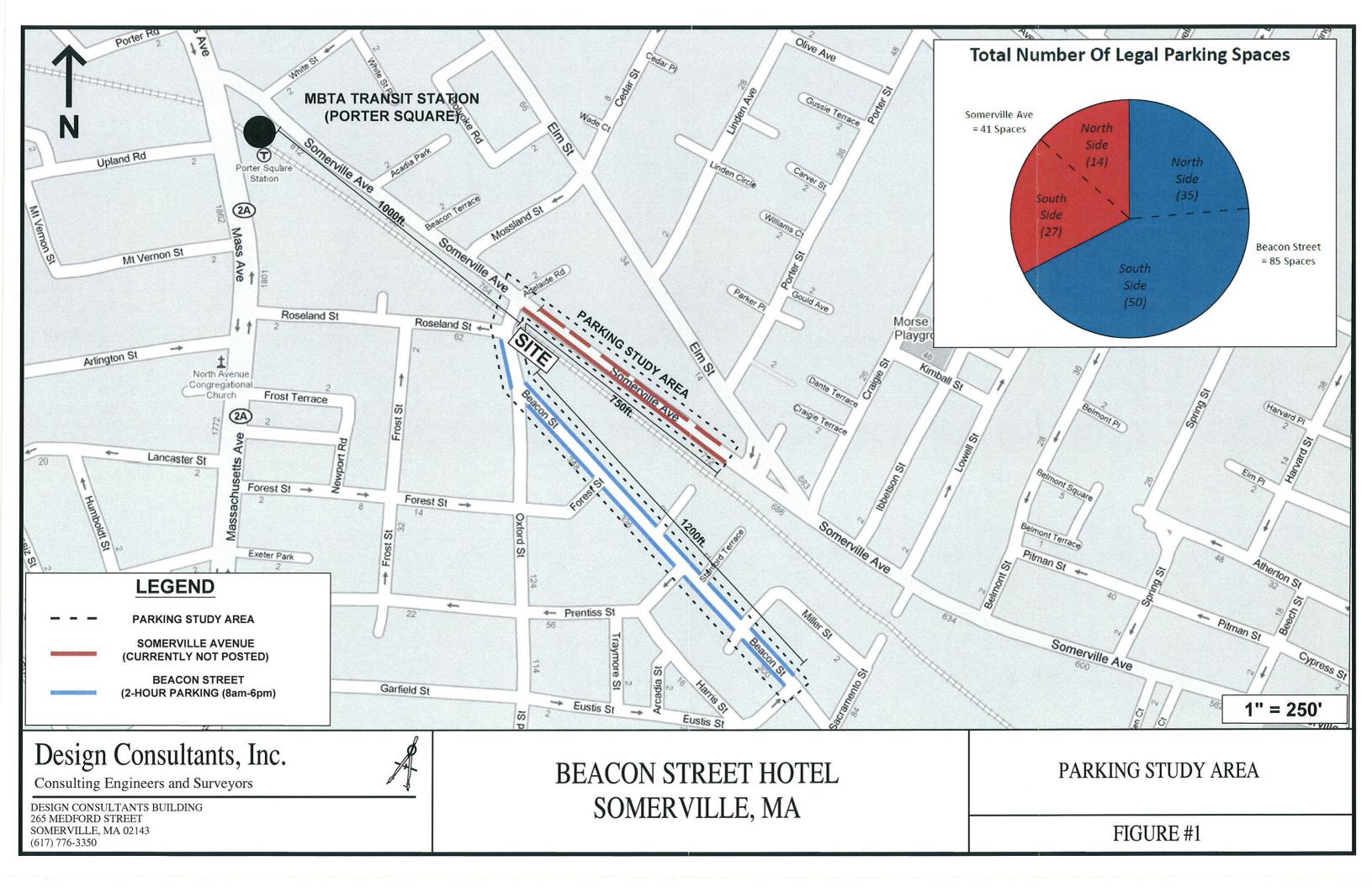
Based on the geographical proximity of the site to public transit, as well as the density of housing in the area, a large percentage of patrons will ride the subway, train or bus, take a taxi, walk, or ride a bike. This results in a reduction of automobile trips and the need for parking at or in the vicinity of the project site.

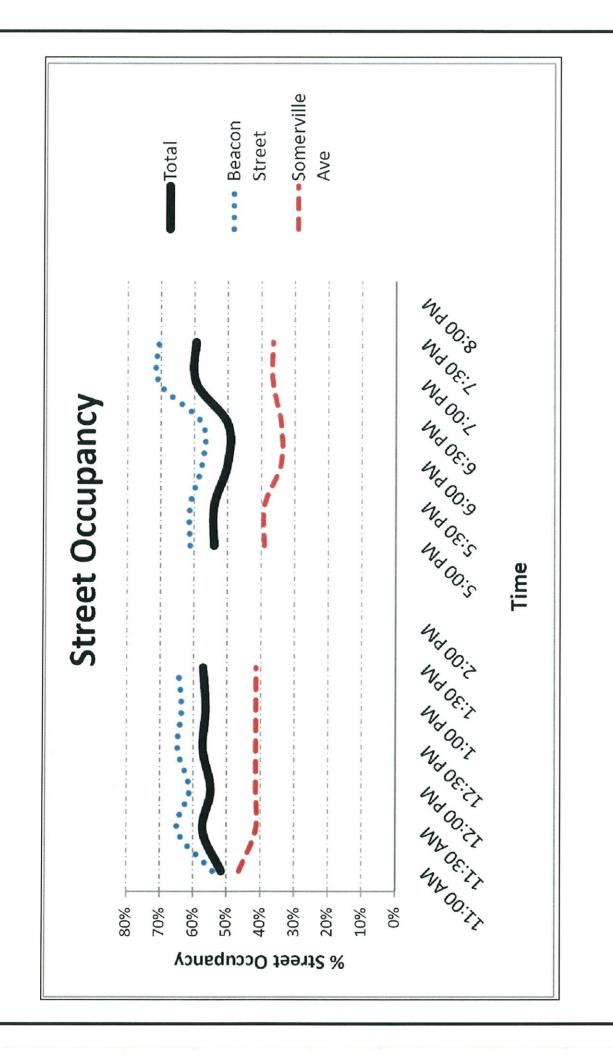
The traffic study completed for the project (by Traffic Solutions, Inc.), documented a user survey of a small hotel site in Kendall Square, Cambridge that showed a 46% mode split for autos during the morning peak hour and 32% during the evening peak hour. Based on this mode split, a total of 5 peak hour vehicle trips are expected to either enter or leave the area for the restaurant use. (This includes taxis that will use the proposed drop off area in front of the site.) Restaurant automobile trips are expected to use available onstreet parking along Beacon Street and Somerville Avenue. Assuming a worst-case turnover rate of 2 hours, the peak parking demand of the proposed restaurant use can be conservatively estimated at 10 spaces.

E. Conclusions

This assessment has confirmed the multi-modal transportation system that serves the area. This environment will encourage a high number of patrons to utilize travel modes other than private automobile to access the site and thereby minimize parking demand.

Field surveys show that approximately 50 on-street parking spaces are within walking distance of the site and available for the general public during the day. This would appear to be more than adequate to accommodate the peak demand of 10 spaces anticipated for the proposed restaurant use. The current parking availability for general commercial use is anticipated to continue with implementation of the city-wide 2-hour parking restrictions for designated streets that include Beacon Street and Somerville Avenue. The restriction will cover the time period from 8:00 AM to 2:30 AM daily except by permit.





STREET OCCUPANCY

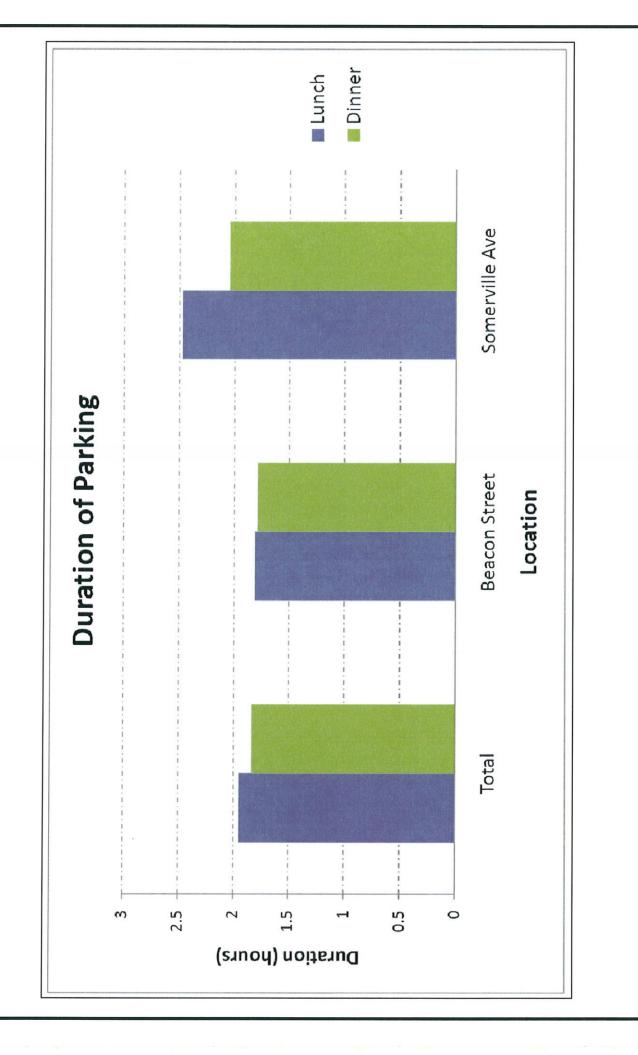
BEACON STREET HOTEL

SOMERVILLE, MA

FIGURE #2

Design Consultants, Inc.

Consulting Engineers and Surveyors
DESIGN CONSULTANTS BUILDING
265 MEDFORD STREET
SOMERVILLE, MA 02143
(617) 776-3350



BEACON STREET HOTEL SOMERVILLE, MA

DURATION OF PARKING

FICTIBE#

Consulting Engineers and Surveyors
DESIGN CONSULTANTS BUILDING
255 MEDPORD STREET
SOMERVILLE, MA 02143
(617) 776-3350

Design Consultants, Inc.

APPENDIX A

SITE PLAN

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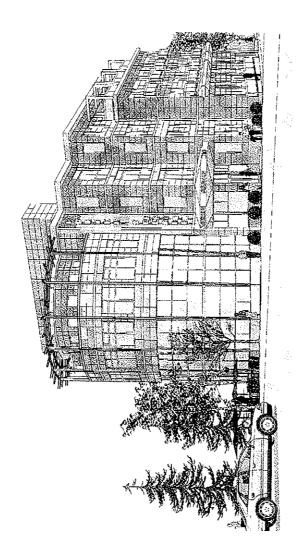




SUBMISSION: 10-30-2008

ADDRESS: 369-371 BEACON STREET, SOMERVILLE MA 02143

BEACON STREET HOTEL



LIST OF DRAWINGS:

EXISTING SURVEY TITLE SHEET Q-1 7

SITE PLAN & ZONING COMPLIANCE A-0

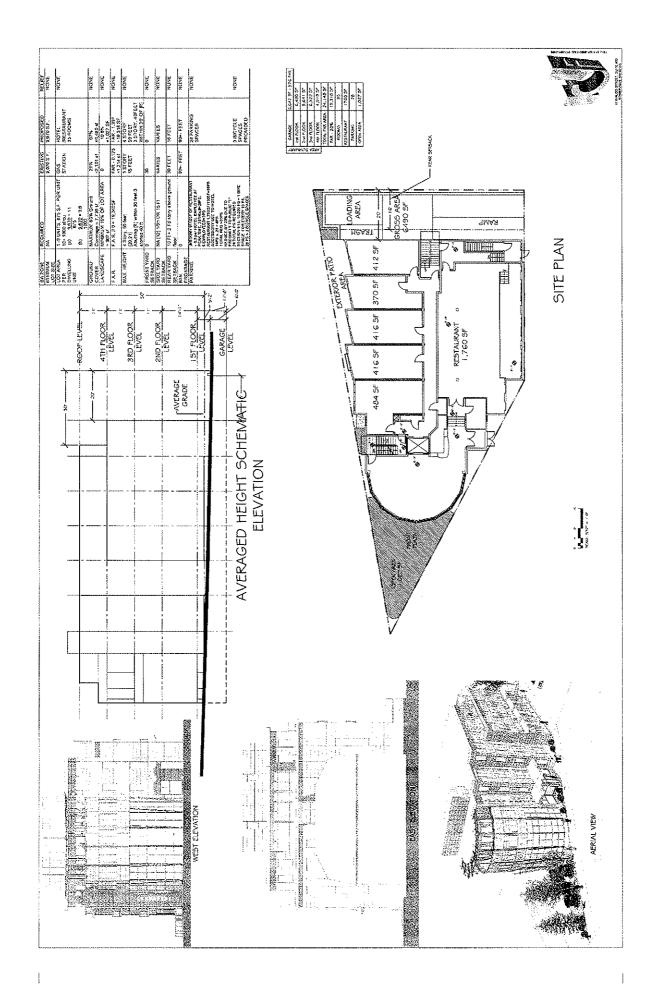
BUILDING FLOOR PLANS

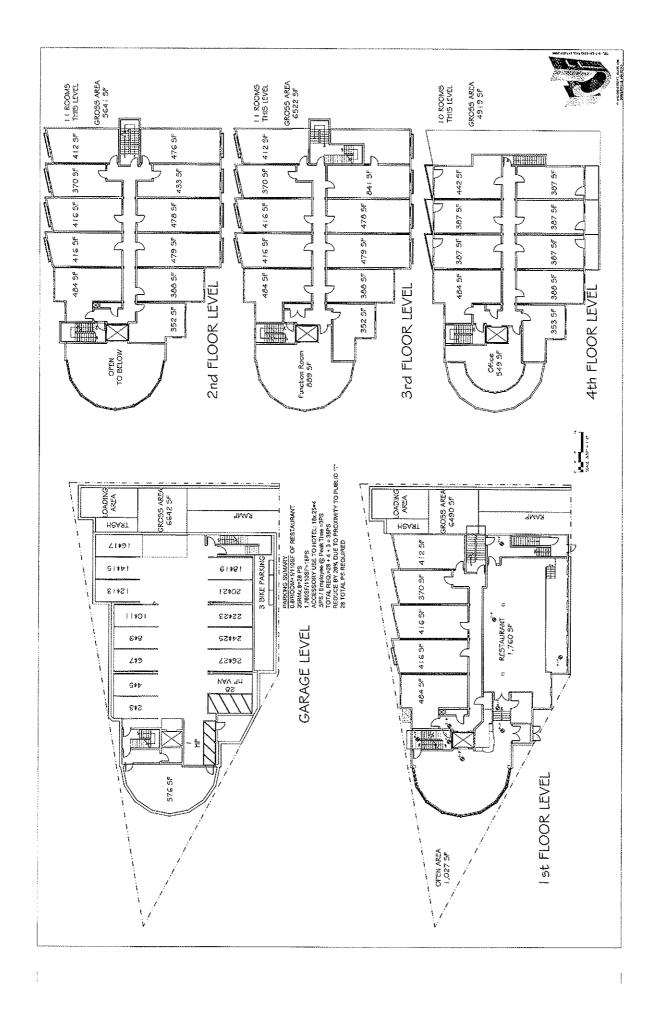
BUILDING ELEVATIONS & PERSPECTIVE VIEWS

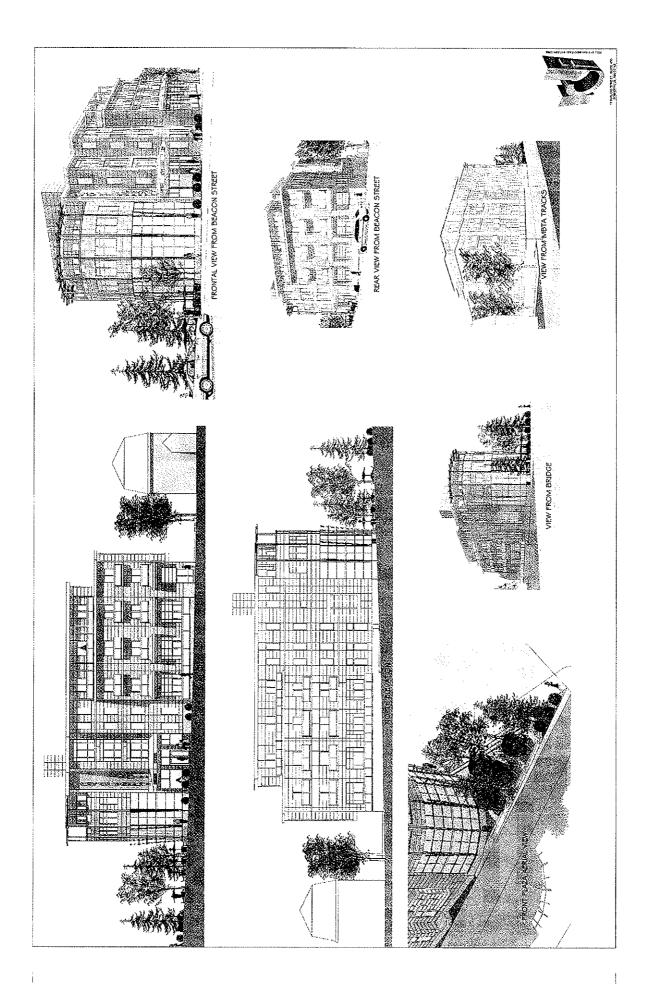
GEORGE MAKRIGIANNIS PO. BOX 391111 CAMBRIDGE, MA 02139 OWNER:

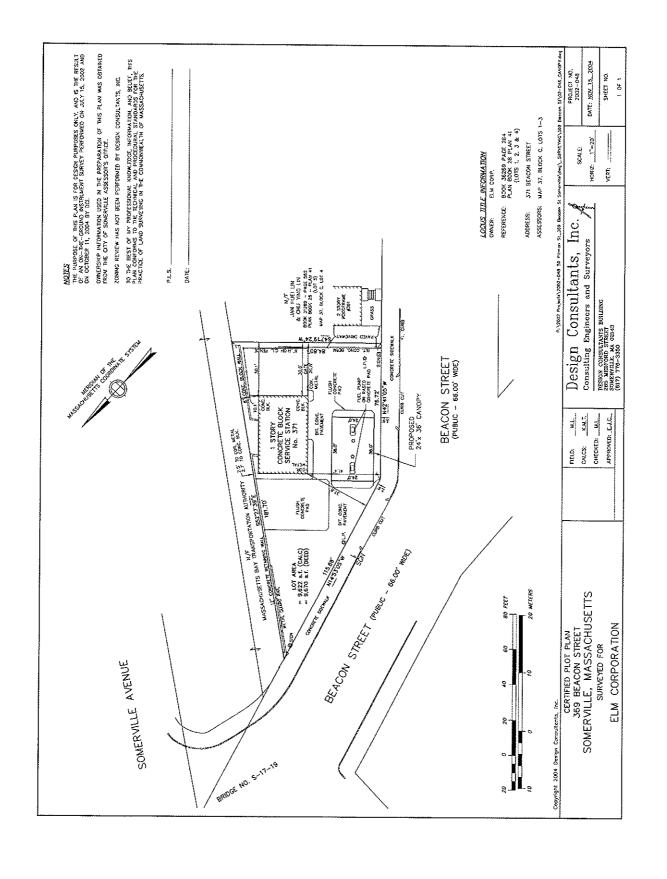
KHALSA DESIGN INC 17 IVALOO STREET, SUITE 400 SOMERVILLE, MA 02 143 ARCHITECT:











APPENDIX B

OFF-STREET PARKING REQUIREMENTS

MINIMUM PARKING REQUIREMENTS FOR BEACON STREET HOTEL

SITE USE	PARKING FACTOR*	SPACES REQUIRED
Hotel 35 Rooms	0.8 per unit	28
	0.5 per employee on peak shift (0.5 x 6)	3
Accessory Use	¹ / ₄ of Normal Restaurant Requirement *** ¹ / ₄ x 16	4
	0.5 per employee on peak shift (0.5 x 6)	3
	TOTAL	35

^{* -} Source: City of Somerville Zoning Ordinance, Article 9. Off-Street Parking and Loading, Section 9.5

REDUCED BY 20% DUE TO PROXIMITY TO PUBLIC 'T' – SECTION 9.6

28 PARKING SPACES REQUIRED

^{** -} Source: Khalsa Design, Inc.

^{*** -} Normal Restaurant Requirement is 1 per 110 GSF*.

Proposed Restaurant Use is 1,760 SF**

Normal Spaces Required = 1760/110 = 16

APPENDIX C

ON-STREET PARKING SURVEY

LICENSE PLATE CHECK FIELD DATA

City: Somerville
Street: Beacon St / Somerville Ave

Date: 9/1/2009

and Elm St

Codes: 000 last three digits of license number: √ for repeat number from prior circuit: — for empty space

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LICENSE PLATE CHECK FIELD DATA

City: Somerville
Street: Beacon St / Somerville Ave

Date: 9/1/2009

and E<u>lm St</u>

Codes: 000 last three digits of license number: $\sqrt{}$ for repeat number from prior circuit: — for empty space

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LICENSE PLATE CHECK FIELD DATA

City: Somerville

Street: Beacon St / Somerville Ave

Date: 9/1/2009

Codes: 000 last three digits of license number: $\sqrt{}$ for repeat number from prior circuit: — for empty space

and Elm St

Space #	Regulation		Time Circuit Begins												Notes
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107	2 Hour				453	7	V		453	V	_			_	
108	2 Hour			988	V	51F	V		51F		√	V	7	V	
109	2 Hour	ADO	V		1						2TÇ				
PRENTIS															
110	2 Hour	T -	95E	V	_ [ADB	V	1	
111	2 Hour	_	180	· · · · · · · · · · · · · · · · · · ·		240	V				_	_		*	
112	2 Hour	_							_	_	_		*****		
113	2 Hour	74F	7	7	7	7	7				74F	V	V	V	
114	2 Hour		S60	_			_	\neg	N45	V	V	V			
115	2 Hour			M17					POW	√	V	7	1	1	
116	2 Hour	POW	V	1	V	1	7			_	_				
117	2 Hour	961	V	7	240	7	V		EEW				69P	V	
	Driveway	T - 1		_			_					****			
	Hydrant	_	_										_		
	Driveway	_	1	_					*****			_			
118	2 Hour					-		\neg	273	V	Н73	√	413	7	
	Driveway	1 –					*****	\neg			_	_	_		
119	2 Hour	261	V	√	1	√	V		261	V	1	1			
120	2 Hour	572	1	1	7	V	V	T	57Z	√	V	V	1	7	
121	2 Hour	16X	V	1	22E	V	V	_	22E		Y85	√	636	V	
122	2 Hour	65K	1	V	V	1	7		65K	√	V	√	7	V	
	Driveway			_					_	_					
123	2 Hour	16P	V	√	1	V	7		16P	V	V	V	V	√.	
124	2 Hour					_		\dashv	13T	V	V	1	V	V	
125	2 Hour	1 = 1			670	√	779	7	-		249	V	√	V	
	2 Hour	581			436			\neg					962	- V	
126															

APPENDIX D

BIKE IMPROVEMENT PLAN

